

Learning Recognition and Credentialing: Expanding Prior Learning Assessment

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Introduction

The relationship between formal credentials and employment has long been established. People need officially recognized post-secondary and/or industry credentials, most often tertiary degrees, to obtain employment that provides sustainable, living wages. Data show unemployment rates in the Organisation for Economic Cooperation and Development (OECD) member countries are significantly lower for those with higher degrees, averaging 4% for tertiary education (i.e., postsecondary education) compared to 6% for upper secondary education, and 11% for below upper secondary (OECD, 2022). Those with a tertiary degree earn 50% more than those with an upper secondary education and 100% more than those with below an upper secondary education (OECD, 2022). The United States Bureau of Labor Statistics (USBLS, 2021) reports similar trends: earnings of those with a tertiary degree earn almost twice that of those with a high school diploma, and those with some college but no degree earn two and a half times that of those without a high school diploma. Unemployment rates in the United States also reflect the differential between those with and without degrees. In 2021, the average unemployment rate for those with a tertiary degree was 2.8%, while those with a high school diploma is 6.2% and those with less than high school was 8.3% (USBLS, 2021).

Tertiary degrees matter when it comes to employment. Many industries use degrees as a screening practice, which makes hiring very degree-centric. Yet, globally there are more people *without* a tertiary degree than with such a degree. Statista (2020) reports that across OECD countries, the average tertiary education attainment is 39.2%, with a range of 59.96% (Canada) to 19.42% (Mexico). That means that 60.8% of the OECD countries' population are not sufficiently recognized for their knowledge and skills, thus restricting many employment opportunities.

In the U.S., 120 million of the adult population (52%) do not have a tertiary-level degree (US Census Bureau, 2021). Of these, some 39 million adults (33%) have some college but no credential, and the other 81 million (66%) have no postsecondary experience at all (National Student Clearinghouse Research Center, 2022). Put another way, one out of six adults in the U.S. have some college but no formal credential to recognize what they know and can do, and two out of six lack college experience. For many, attaining a

college degree is insurmountable for several reasons (e.g., financial, family, health, lack of prerequisites), yet essential for attaining living wage employment, thus hindering those who do not complete a degree.

Credentialing is also a serious equity issue. In the U.S., degree completion by race-ethnicity reveals major disparities: 71% of Americans with degrees are white adults, compared to 10% who are African American, 10% who are Latino/Latina, and 9% who are Asian (Census Bureau, 2021). Although this evidence of inequity is significant, comparing across race-ethnicity groups does not provide a full picture of the inequities that exist across degreed and non-degreed populations. Zanville & Travers (2022) used the U.S. Census Bureau data to examine comparisons within each group to get a better understanding of credentialing patterns. Their results showed even greater differences between those with and without degrees: 53% of white adults have acquired a degree while only 32% have no postsecondary degree. In contrast, 30% of Latino/Latina adults have a degree, while 57% have no postsecondary degree. For Black adults, 39% are degreed while 43% have no postsecondary degree. Black adult learners have the highest percentage (18%) with some college/no degree and, furthermore, carry the highest student debt load (Hanson, 2023). People lacking credentials are excluded from sustainable economic success in the labor market. At the same time, most employers use those credentials as markers of knowledge and skills.

Thus, not only do we need to recognize these significant gaps; but we also need to recognize the knowledge and skills already possessed by those who have no or limited post-secondary schooling. Without a doubt, a fairer postsecondary credentialing system is needed to capture uncounted learning and validate that learning to enable all individuals to be recognized for what they know and can do.

However, tertiary education is *not* the only source of valuable knowledge and skills, although it is still treated as such. The role of credentialing is to seal learning into qualifications that are recognizable, transferable, and usable so that individuals can gain and sustain employment and continue their education. But the current system treats individuals as if they have acquired no valuable knowledge or skills through some college and no degree, work, and/or life experiences. The result is an overall system that does not adequately serve national and global social and economic needs.

The assessment and recognition of prior knowledge emerged as a practice to provide greater access to postsecondary education and employment. This practice, often identified as prior learning assessment (PLA), credit for prior learning (CPL), prior learning assessment and recognition (PLAR), recognition of prior learning (RPL), validation of prior learning (VPL), as well as other terms, seeks to capture and recognize non-formal and informal learning in such a way that it can be used for education and employment. This recognized learning is rarely credentialed on its own, but more often is integrated into existing credentials. This can limit what and how knowledge and skills are formally recognized and can leave much learning unacknowledged.

Credentialing systems are at a critical crossroads. The centuries-old, four-tiered degree system (associate, baccalaureate, master's, doctorate) is insurmountable for many and hinders those who do not complete any given tier. The system no longer provides adequate signals of what someone knows and can do for those who do acquire a degree and totally misses documenting knowledge and skills for those who do *not* obtain a degree. As a result, a huge growth of non-degree credentials has been created to try to capture and recognize individuals for their knowledge and skills.

In the U.S., there are over one million unique credentials awarded from four types of credential providers: postsecondary educational institutions, massive open online course (MOOC) providers, non-academic providers, and secondary schools (Credential Engine, 2022). The demand for new types of educational credentials has grown substantially in the last five years - especially since the start of the Covid pandemic, driven in part by growing demand for certificate programs and alternative credential offerings (Gallagher, 2021). The number of open badges awarded, for example, nearly doubled between 2018–2020, from 24 million to 43 million (Gallagher, 2021). As the acceptance of new types of credentials has grown, a number of employers have become learning providers in their own right — moving beyond training employees or providing staff members with tuition assistance for higher education to also developing their own curricula and expanding their public-facing credential offerings (Gallagher & Zanville, 2021). This explosion of credentialing begs for a redesign of the current degree-centric system to include an array of recognizable credentials of varying kinds, lengths, and values.

Learner-Centered Credentialing System

Commonly, the life-long learner pathway is portrayed in curvy, overlapping, backtracking, wandering squiggles, like a bowl of spaghetti, to represent how the learning/working lives of adults are not linear. This visual replaces an even older model that depicts a linear path of school-then-work. Both images place education and employment as central life events, with the learner as a passive participant rather than the driver. Basically, the expectation is that learners will intersect at some point with formal education and training, while also being responsible for navigating and connecting those systems. From this perspective, the other meandering paths that an individual might take, although filled with all types of experiences, are more or less “noise,” causing distractions from pursuing education and employment.

This conventional understanding positions work and school in competition with each other, jostling for the learner’s focus, and does not value learners’ voices, choices, or accomplishments. This centralized viewpoint has made the degree powerful and essential for most jobs and resulted in a bifurcation between those who do and do not have degrees. Yet so many people have valuable non-degreed learning that when formally recognized can provide opportunities to continue education and acquire work at a living wage.

A different perspective is to place the learner in the center of the model as the constant, with a range of life experiences, education, and work changing along the way. A cross-section of this 'bowl of spaghetti' might reveal a pattern of concentric circles representing experiences that lead to further knowledge and skills recognized by different types of credentials, as shown in Figure 1.

From this point of view, people develop connections across their learning and acquire credentials as they go, forming a learner-centered credentialing system. Formal schooling and training and work experiences are important occasions to formulate new knowledge and skills, but individuals on their own must thread together their knowledge and skills in preparation for the next step in their ever-evolving path.

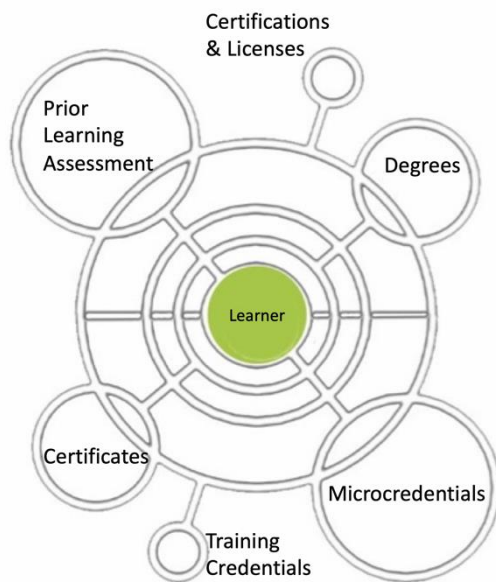


Figure 1: Learner-Centered Credentialing System

A key factor of a truly learner-centered credentialing system is that all learning is recognized regardless of its source or level. People gain credentials for knowledge and skills as they develop them through life, work, and school, irrespective of formal, non-formal, or informal sources. In such an alternative system, learning is captured across all levels of a continuum, recognizing and connecting learning acquired throughout. The roles of education and workforce systems expand to include recognition, validation, and credentialing of learning; connecting and stacking credentials; and providing clear

guidance on how learning and credentials are integrated. Although one could argue that these education and employment systems already function in this way, they are not seen as the core of a meaningful learner-centered credentialing system. Such a system would require an emphasis on the progression and transferability of knowledge and skills across learning, working, and life experiences.

From Prior Learning Assessment to Learning Recognition

Prior learning assessment has been defined as the process by which learning that has been acquired outside of the formal education or training setting is evaluated to meet academic or workforce credentialing requirements. While PLA is still not considered mainstream (although practiced more and more widely) and is commonly treated as an appendage to the traditional degree and industry credentialing system, PLA practices are a major development in recognizing learning that had previously been discounted and

has contributed to people acknowledging their own knowledge and skills and thus their own worth.

Still, we need to be aware that PLA has focused on learning previously acquired, thus “prior” in its name, and most often used for formal credits or workplace credentials. This approach limits the usability of the outcomes of the PLA process. It also means that knowledge and skills not directly applied to academic or workplace requirements are treated as if they do not exist or are not “good enough.” So often, people have learning that is not acknowledged. Lacking is an overall learning recognition process.

A fuller understanding of learning recognition must encompass all the ways we recognize, validate, and credential that someone has knowledge and skills, regardless of the source and application of those knowledge and skills. Like many prior learning assessment (PLA) models, learning recognition includes knowledge and skills acquired through workplace learning, personal learning, academic learning, formal industry credentials such as licenses and certifications, military training and occupations, cultural and social learning, and other forms of learning. But in addition, learning recognition captures all learning as it is acquired, including learning gained from formal academic and training sources and current learning experiences. In effect, learning recognition expands PLA practices to capture and seal learning within smaller credentials throughout a lifelong learning continuum, which can then be used toward various academic and non-academic learning paths, employment opportunities, and additional credentials.

A learner-centered credentialing system would be built upon learning recognition as a common and expected practice for all learners. This type of system would be fairer because no learning would go unrecognized or uncounted. The Credential As You Go movement was grounded on the premise that learning recognition would lead to incremental credentials (credentials offered in increments to build into a learning pathway), opening opportunities to all learners. No one would be left behind.

Credential As You Go

[Credential As You Go](#) is a national movement across the U.S. catalyzing an educational/industry credentialing system redesign to include learning recognition and incremental credentials that capture and validate counted and uncounted learning. Incremental credentials officially recognize learners for what they know and can do as they acquire their learning, thus ensuring they obtain formal documentation of that learning so that it can be used for furthering their education and employment. Too often learners go unrecognized for their learning or must wait until they reach a degree or industry certification level before they receive formal recognition. By capturing learning as it is acquired and formally sealing that learning into a credential, individuals are able to use that learning more readily for education and employment.

This means that our current understanding of credentials is much too limited. There are many types of incremental credentials (degrees, certificates, industry certifications, licenses, badges, microcredentials) provided by education, industry, and third-party

sectors. They are offered in non-credit, credit, or blended curricular models at secondary, pre-postsecondary, undergraduate, and graduate levels. They can also merge learning from multiple sources. For some learners, they can serve as a first credential, act as a bridge between other credentials, and build (stack) into larger credentials.

Although incremental credentialing is not new, it is *not* the current design of the U.S. and many other countries' learn-and-work systems. As mentioned above, there are over one million credentials in the U.S. (Credential Engine, 2022) awarded by many types of providers including community and technical colleges, four-year colleges and universities, third-party organizations, employers, military, and state licensing boards. Often these credentials are treated as if they are unconnected; however, there are increasing calls to link an array of “credentials of value” —degree and non-degree — into understandable, coherent systems. This requires a redesign of credentialing systems to reduce confusion and increase learning recognition.

Credential As You Go —Phase 1

[Credential As You Go](#) began with an 18-month planning grant from Lumina Foundation to the State University System of New York's Empire State University. Phase 1 (2018-2020) enabled faculty from two- and four-year institutions to explore the feasibility of a nationally recognized transferable incremental credentialing system. Key outcomes from this work included:

- A national environmental scan found that some states, systems, and institutions were already moving toward incremental credentialing in different ways. The patterns of credentialing were identified to inform an emerging Incremental Credentialing Framework.
- Pilot projects at two community colleges and a university within the State University of New York (SUNY) developed and tested the emerging themes, providing proof of concept. The faculty and Credential As You Go team refined the Framework, which features six distinct incremental credential approaches (see Figure 2).
- Feedback from hundreds of top national leaders – obtained through an advisory board, interviews, and a symposium – provided valuable insights and generated enthusiasm for scaling the Credential As You Go initiative.

The Environmental Scan

The environmental scan conducted by the initiative's project team gathered 87 state- and system-level projects across 41 states that were recognizing and credentialing learning in various ways. Although many more credentialing projects were identified at individual institutions, the scan focused on the state and system levels because of the implication for policy change and resource allocations. State- and system-level projects were identified through: 1) internet searches across all 50 states and territories, and 2) projects known to leaders of the initiative or its 25-member advisory board.

Projects identified in the scan were sorted by several factors, including purpose, key issues being addressed, credential focus (credit or non-credit at the postsecondary education and/or employment levels), and key outcomes (when available).

Eight key themes were identified as the purpose of these credentials and key issues being addressed:

- Equity – Increasing access to, persistence in, progress through, and completion of postsecondary education; and obtaining gainful employment across different race and ethnicity groups, underserved populations, and learners at risk of failure, including adult learners.
- Transparency – Increasing information about, the learning represented within, and the outcomes from the credentials to all stakeholders – including learners, other postsecondary institutions, and employers; providing better transparency about what learners know and can do, through strategies such as comprehensive learner records.
- Trust – Building partnerships and agreements across institutions and industries, with increased engagement, input, and feedback from stakeholders.
- Quality Assurance – Building strategies and processes to ensure the quality of credentials, especially shorter-term and microcredentials.
- Access, Persistence, and Completion – Creating strategies to increase learners' access to, persistence in, and completion of high-quality credentials that lead to further education and gainful employment. This includes the development of additional shorter-term credentials directly aligned to employment.
- Assessment – Developing more direct assessments and assessments designed to recognize and validate all learning – regardless of source – for academic credit, competency attainment, and for program or employment requirements.
- Workforce development – Increasing attainment of competencies that help learners find or retain employment, often through industry partnerships with postsecondary institutions, skills organizations (e.g., boot camps), or community-based organizations.
- Cost – Implementing different strategies that decrease the cost of education while increasing the number of quality credentials and ensuring a sustainable return on investment.

In addition to certificates and degrees, the types of credentials developed within the various projects included badges, microcredentials, and other shorter-term credentials. Instruction featured condensed methods (e.g., eight-week terms, weekend courses), and online delivery. In some cases, learning external to the institution (e.g., prior learning, licenses, certifications) was also embedded in the credentialing efforts. Many of the credentials were aligned to degree programs, creating stackable credentials.

Patterns in the methods for creating credentials and connecting them to employment were identified and themed. From these patterns, a draft *Incremental Credentialing Framework* (2023) was developed, used, and revised during the pilot phase of the grant.

The environmental scan surfaced numerous concerns:

- Lack of Consistency
 - Inconsistency in approaches increased the potential to confuse stakeholders, including learners. It also can increase mistrust and hinder transferability.
 - There was no common language used across the credentials. This also meant there were variations in the way credentials were described and the knowledge and skills they represented. This confused stakeholders and made it difficult to align related credentials.
 - Although some credentials had quality assurance and transparency mechanisms in place, these were not consistent.
 - Methods of describing credentials and communicating their value were inconsistent.
- Models built on older models
 - The four-tier degree system in postsecondary education hinders the development of new types of credentials. Too often, newer credentials were structured around criteria established by legacy systems, without consideration of what credentialing could be today or in the future.
 - Postsecondary education business models and infrastructures are built around a four-tier degree system, which often lacks policies better suited to shorter-term credentials – including those related to learner data, financial aid, and resource allocation.
 - Recruitment and enrollment strategies tend to target traditional degree-seeking students, with little outreach to learners who would benefit from incremental credentials.
- Technology and data sharing
 - Most student information and degree audit systems are designed for degrees and certificates, not for other types of credentials or the assessment of prior learning. Some institutions developed workarounds to store data on learning and smaller credentials.
 - Although some institutions piloted different types of comprehensive learner records (e.g., Learn & Employment Record – LER), adoption is slow across systems, institutions, and industries.
- Learn-work integration
 - Some believed that incremental credentials apply only to work-based programs – a barrier to overcome. Others were developing different types of incremental credentials across academic programs to document different 21st century skills.

- Some academic programs were embedding workplace credentials into academic programs or evaluating workplace credentials for program or admissions credit. This practice is growing but is still in the early stages of development.

Credential as You Go—Phase 1: Recommendations

The initiative's Phase One work identified the following recommendations to inform the next stages of the work:

- Develop a learner-centered, nationally recognized credentialing system.
- Recognize, validate, and credential all learning, as knowledge and skills are acquired throughout a learner's lifetime.
- Increase the number and types of incremental credentials available to all learners.
- Connect and integrate postsecondary and workforce competencies through different types of incremental credentialing.
- Provide clear messaging of what someone knows and can do, including transparent assessments and documentation.
- Increase efforts to define quality clearly, which will build trust.

Credential As You Go —Phases 2 & 3

Building on Phase I, additional funding for Credential As You Go was sought and acquired through grants from the Institute of Education Sciences, U.S. Department of Education funds (Phase 2, 2021-2024), and Walmart (Phase 3, 2022-2023). Phase 2 focuses on researching the feasibility of an incremental credentialing system using the Framework across three states (Colorado, New York, and North Carolina). The institutions within these states are developing incremental credentials, using the *Incremental Credentialing Framework* developed in Phase 1. Data are being collected on what it takes to create incremental credentials and learner outcomes in terms of access, retention, completion, and next steps for the learner (further education and employment). Phase 3 focuses on system changes for expansion and sustainability of incremental credentials. This latter phase brought on an additional 28 organizations (3 higher education systems, two credentialing organizations, and 24 institutions of higher education). These joined Phase 2 institutions to form a network of 53 participating organizations in Credential As You Go. Together, Phases 2 and 3 focus largely on prototyping, research, professional development (including the development of tools, resources, and playbooks), technology needs and Learn and Employment Records (LER) landscapes, and a national campaign to continue the movement.

Thus far, the research team has collected data on 105 credentials developed through Phase 2:

- ✓ 65% (n=69) are launched and have learner enrollments; the remaining 35% (n=36) are targeted to launch in Fall 2023.

- ✓ 51% (n=54) are credit-bearing, 37% (n=39) are noncredit, and 11% (n=12) are a combination of credit and noncredit (including PLA and other learning recognition processes).
- ✓ For credit credentials, the most common range is 10-12 credits, which are earned within the first two years of undergraduate studies.
- ✓ The types of credentials vary—microcredential, badge, certificate, degree—with microcredentials being the most common (30%).

Institutions are using a variety of strategies to design their incremental credentials. Currently, eight strategies have been identified:

- Add credentials together to make up a full degree (credit-based)
- Develop credentials to fit into parts of the degree (credit-based)
- Provide specializations for a degree (credit-based)
- Provide different tracks to a degree (credit-based)
- Award credit based on courses already completed (credit-based)
- Embed credit for prior learning (noncredit- or credit-based)
- Focus on employment (usually noncredit-based)
- Articulate noncredit to credit learning

The Incremental Credentialing Framework

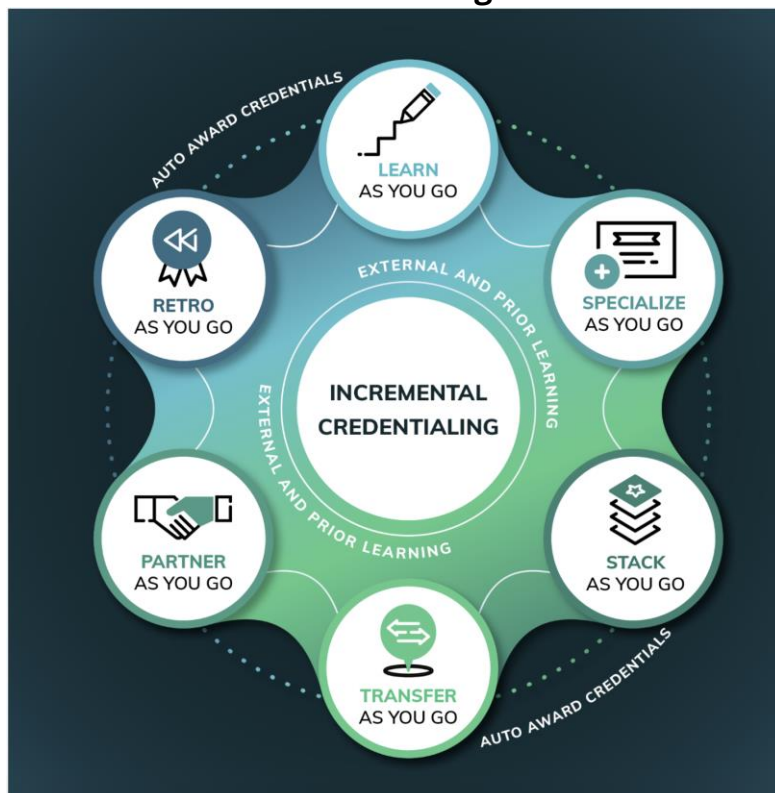


Figure 2: The Incremental Credentialing Framework

The Incremental Credentialing Framework provides six approaches to developing and implementing incremental credentials. The six approaches represent ways in which higher education and industry can develop different types of credentials. The six approaches are:

- [Learn As You Go](#) credentials can stand on their own or be connected to other credentials, including degrees. They prepare individuals for upskilling, reskilling, and/or developing new skills in the workplace and academic disciplinary areas. Individuals often seek these credentials without intending at that time to pursue a longer-term certificate or degree.
- [Specialize As You Go](#) credentials can prepare individuals for specializations in the workplace and academic disciplines. They may or may not be connected to other credentials. Individuals seek these credentials to add advanced learning, often to more traditional certificates or degrees to improve employment prospects.
- [Stack As You Go](#) credentials purposefully stack into other credentials, forming a credentialing pathway. These credentials can be non-credit, microcredentials, certificates, skills badges, licenses, certifications, degrees, and other types. These credentials are purposefully planned to stack and offer transparent choices to learners for education and employment.
- [Transfer As You Go](#) credentials are built to transfer across higher education institutions, academic programs, and/or job levels. They may be built sequentially, leading to the next-level credential (e.g., non-credit to credit, associate to bachelor's, one job to the next level), or across institutions or programs at the same level. Transfer credentials provide potential cost-sharing when they can be offered across institutions, programs, or industries.
- [Partner As You Go](#) credentials prepare individuals for employment, as well as work-focused credentials are accepted into or embedded within credentialing pathways. These credentials often are developed in conjunction with business/industry and higher education partnerships, and they may or may not be connected to a degree, certificate, or industry credential.
- [Retro Award As You Go](#) credentials are awarded for learning already acquired but not yet credentialed. They often target adult learners with some college and no credential and sometimes recognize learning "milestones" that are reached before completing a degree (e.g., general education expectations). They also can recognize prior learning toward industry certifications and licenses.

These types of incremental credential approaches are not mutually exclusive; they are often used within the same credential. Of the 105 credentials being studied so far in the research, 50% (n=52) were designed with multiple approaches, while 25% (n=27) indicated just one approach (25% had not indicated an approach yet). Of those

identified, the following list shows the distribution of approaches from the Incremental Credentialing Framework:

- Stack As You Go – 59%
- Specialize As You Go – 36%
- Learn As You Go – 36%
- Partner As You Go – 22%
- Transfer As You Go – 15%
- Retro-Award As You Go – 7%

Central to all these approaches are learning recognition processes. As indicated previously, 34% of the incremental credentials developed through Credential As You Go are for non-credit learning and an additional 13% are for credentialing that merges prior learning, non-credit, and credit learning, for a total of 47% incorporating learning acquired outside the traditional classroom experience. This trend indicates that both academic and non-academic learning is important to capture and made available for learners to use toward continuing their education or obtaining further work.

Conclusions

Recognizing and credentialing learning has been in existence since the beginning of education, vocational training, and apprenticeships. It has played a critical role in helping people acquire employment and advance in their fields. It has also become a dividing line between those who are recognized and credentialed versus those who are not. This dividing factor is an equity issue for different race/ethnicity minority groups, women, the economically and socially disadvantaged, and for those with less or lacking formal education (Lumina Foundation, 2023). With one in six adults in the U.S. having some college and no credential, and another one-third with no college experience (US Census Bureau, 2021), we lack consistent, formal ways to recognize and validate learning achieved to equalize access to further education and employment.

Prior learning assessment has a rich history of applying processes for recognizing and validating learning acquired outside traditional formal education and training practices. It has increased the ability to provide greater access to education and employment for many people who would have been otherwise left behind. Still, this practice limits access for vast numbers of people who may not be in a degree program or working toward an official industry credential. Prior learning assessment needs to be expanded beyond its current approach. Many around the globe have learning that can help them further their education and improve employment opportunities but are unrecognized for what they know and can do. This lack of recognition limits the acquisition of non-degree credentials, which have been shown to improve employment rates (Valentine & Clay, 2019). It also limits further access to education.

The Credential As You Go movement is cultivating a transformation of the U.S. credentialing system. Focused initially on post-secondary education, the work is extending to credentialing organizations and industry. The vision is to have an

incremental credentialing ecosystem in which all learners are recognized for what they know and can do as they acquire learning from multiple sources. The meaning of those credentials will be understood by learners, employers, and educational institutions. Learners will be able to earn credentials to fit their needs and inform their education-career planning, including job transitions. These credentials will be used by employers in hiring and advancement and recognized within the postsecondary ecosystem as counting towards further learning. An incremental credentialing system would allow more people to apply their knowledge and skills to education and work, increasing access to and security in employment.

The concept of learning recognition coupled with incremental credentials opens possibilities for recognition, validation, and credentialing of all learning throughout an individual's lifetime. It enables learners to be respected for their knowledge and skills regardless of who they are or when, how, or why the learning was developed. This is a critical first step to increasing employability, and thus providing more people with living wages. We need to reimagine and put in place more robust systems that recognize everyone and reduce the gap between those who can support a family and those who cannot. Credentialing is a global issue; one that can be solved by building upon the roots of prior learning assessment and creating a system that recognizes everyone for what they know and can do.

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